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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,394	11/14/2003	William L. Caplan	0918.0248C	6843
27896	7590	05/25/2005	EXAMINER	
EDELL, SHAPIRO & FINNAN, LLC 1901 RESEARCH BOULEVARD SUITE 400 ROCKVILLE, MD 20850			GLENN, KIMBERLY E	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/712,394	CAPLAN ET AL.
	Examiner	Art Unit
	Kimberly E. Glenn	2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-30 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5,8,10,11,16-20,23,25 and 26 is/are rejected.
- 7) Claim(s) 6,7,9,12-15,21,22,24 and 27-30 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____.   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/08/03</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

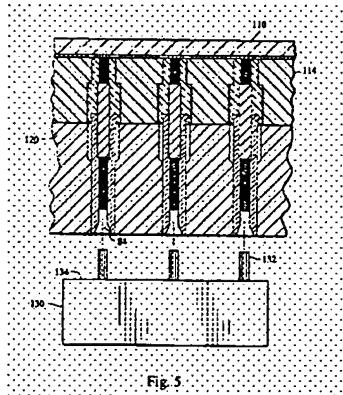
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8,10,11,16-20, 23, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howard et al US Patent 6,102,709 in view of Ferchau et al US Patent 5,311,408.

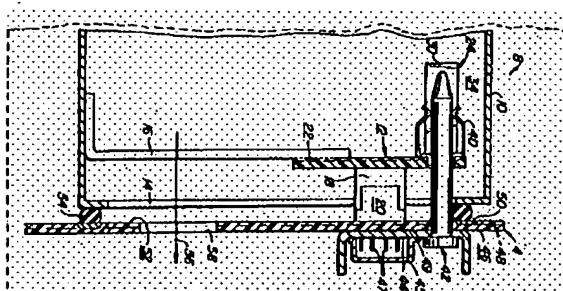
The primary reference Howard et al disclose an interconnect structure comprising a microstrip line 112 places on a printed wiring board 110, a signal conductor comprising of a conductive pin 90 and conductive bundles 76 86 extending from the component 130 into a support structure (upper housing 114 and lower housing 120). The supporting structure can be considered a chassis since a chassis is defined as a supporting frame of a structure. Signals from the component are coupled to the microstrip line 112 by means the signal conductor (76 86 90). The component and the support structure are arranged in a vertical fashion with respect to the microstrip line. An insulative sleeve (70 80) is placed around the signal conductor (76 86 90) with the support structure. The insulative (dielectric) sleeve maintain a constant characteristic impedance through the interconnect length. The component comprises a component signal line 132, which couples to the signal conductor to provide a signal. The

component signal line is perpendicular to the microstrip line. The method step to the above disclosed apparatus are inherent.



Thus, Howard et al is shown to teach all the limitation of the claims with the exception of an electrically conductive gasket placed about the signal conductor and between the microwave module and the support structure.

Ferchau et al disclose in figure 1, a module 8 mounted on a backplane 4 with a conductive gasket placed between the module and the backplane. The conductive gasket can be composed of any of the following: nylon with metallic threads; silver filled silicon rubber or carbon loaded rubber. The conductive gasket provides EMI shielding between the module and the backplane.



Therefore, one of ordinary skill in the art at the time of the invention would have found to obvious to the interconnect structure of Howard et al with a conductive gasket place between the component and the support structure as taught by Ferchau et al.

The motivation for this modification would have been to provide EMI shielding between the component and the support structure.

#### ***Allowable Subject Matter***

Claims 6, 7, 9, 12-15, 21, 22, 24 and 27-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: With regards to claims 6, 7, 21 and 22, the prior art of record does not disclose or fairly teach a clearance relative to the channel that maintain the path impedance independent of the position of the insulating sleeve and signal conductor within the channel. With regards to claims 9, 14, 24 and 29, the prior art of record does not disclose or fairly teach a conductive coupling element and a capacitive element, which compensate for inductance of the conductive coupling element.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Mok US Patent 5,619,399, Winslow et al US Patent 6,166,615, Allen et al US Patent 6,028,497 and Lloyd et al US Patent 6,878,872.

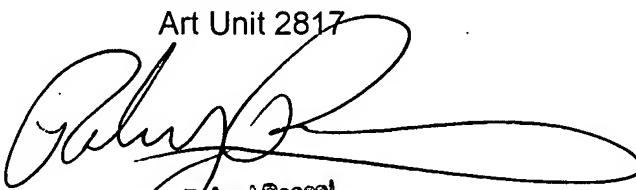
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E. Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimberly E Glenn  
Examiner  
Art Unit 2817

keg

  
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